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ABSTRACT

This report describes the initial development of the Vocational Interest Survey (VIS), which is comprised of six experimental scales for the measurement of Holland's vocational typology. The initial item pool was generated by the free-association written responses of high school students. Occupational titles were selected for inclusion in a pilot questionnaire if the students mentioned them more than twice. The scale was administered to vocational guidance clients. Items for the six Vocational Interest Survey scales were selected on the basis of cluster analysis of the 138-item pilot questionnaire, along with repeated item-total correlation analyses. The resulting six scales contained 105 items and provided internal consistency reliability ranging from 0.72 to 0.93. Principal components analysis of the scales produced a two-dimensional structure of interests. Scores on the VIS were related to existing interest measures. The results confirmed "positively" each of the six scales' construct validity. When VIS scores were compared with those for personality and ability measures, the results confirmed "negatively" the construct validity of each of the VIS scales. The VIS will provide counselors with information at low cost and with a brief investment of time. These experimental scales are intended for use in guidance and research. (Author/DWH)

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Research Report

VOCATIONAL INTEREST SURVEY -
SIX SCALES FOR THE MEASUREMENT OF
HOLLANDS VOCATIONAL TYPOLOGY

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VOCATIONAL INTEREST SURVEY -
SIX SCALES FOR THE MEASUREMENT OF
HOLLANDS VOCATIONAL TYPOLOGY

James A. Athanasou
July, 1982.

This report is a draft for inter-office circulation, comments and criticisms are solicited, but this should not be cited as a reference without the permission of the author.

ABSTRACT

This paper describes the initial development of the Vocational Interest Survey (VIS), comprising six experimental scales for the measurement of Holland's vocational typology. The initial item pool was generated by the written free-association responses of (n=148) high school students. Occupational titles which were mentioned two or more times were selected for inclusion in a pilot questionnaire. This was administered to 571 vocational guidance clients. Items for the six VIS scales were initially selected on the basis of cluster analysis of the 138 item pilot questionnaire, together with repeated item-total correlation analyses. The resulting six scales contained 105 items, and provided internal-consistency reliability estimates ranging from 0.72 to 0.93. Principal components analysis of the six scales produced a two-dimensional structure of interests. Scores on the VIS were related to existing interest measures. The results confirmed "positively" each of the six scales' construct validity. When VIS scores were compared with those for personality and ability measures, the results confirmed "negatively" the construct validity of each of the VIS scales. Separate sex-norms are provided to partially overcome the restrictive nature and sex-stereotyping of career choices.

SIX SCALES FOR THE MEASUREMENT OF HOLLAND'S VOCATIONAL TYPOLOGY

The Vocational Interest Survey (VIS) described in this report is intended for use by vocational guidance clients who are in the early stages of career planning. Its primary purpose is to stimulate and facilitate career exploration by indicating regions of the world of work that individuals may want to explore. It is based on the premise that vocational interests (i.e. activity preferences), may be inferred from consistent patterns of likes and dislikes.

Rationale

VIS reports results for six basic types of interests related to the typology described by Holland (1973) viz. Realistic, Investigative, Artistic, Social, Enterprising and Conventional types.

Holland (1973) has provided a theory of careers based on occupational choices and the assumption that members of occupational groups create characteristic environments. As a basis for career choice Holland suggested that people possessing interests similar to those in a particular occupational environment will probably find that employment rewarding. Central to the theory are the six types of persons and a classification of occupations. Holland et al (1969) also proposed a hexagonal model for defining the psychological relationships among types (Figure 1).

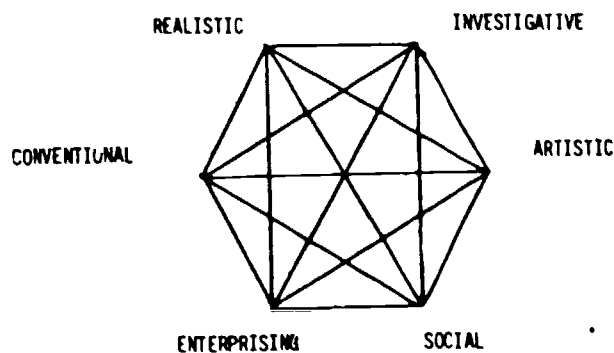


FIGURE 1. Holland's model for defining the hexagonal relationship among psychological types.

This theoretical model has found application in the Strong-Campbell Interest Inventory - SCII (Campbell 1977), the American College Testing Program's UNIACT Interest Inventory (Lamb & Prediger, 1981) as well as Holland's (1965) Vocational Preference Inventory and the Self-Directed Search (Holland, 1979). Scores from other inventories, such as the Kuder Preference Record-Vocational, can also be readily classified by Holland's six types.

Australian studies of the Vocational Preference Inventory (e.g. Taylor & Kelso, 1973, Athanasou et al 1981; Carroll, 1982) have acknowledged differences in occupational terminology and/or the need for an Australian measure. More recently, Tuck and Keeling (1980) have commented on cultural differences in the factor structure of the related SDS.

The purpose of this report is (a) to outline the development of six scales for the measurement of occupational choices, and (b) to present some initial data on these six scales. The scale names, descriptions and equivalent Holland titles are as follows:

PRACTICAL interest means that you prefer work in skilled trades, technical and some service occupations. These activities involve physical strength and practical action. Examples: Printing, Farming, Shop Work, Electronics, Gardening, Mining, Driving, Engineering, Technician. (Equivalent Holland Scale : Realistic).

SCIENTIFIC interest means that you like to know, how and why things occur and work. This includes scientific and some technical occupations. Examples: Astronomy, Museum Work, Biology, Medicine, Chemistry, Geology, Physics, Veterinary Work, (Equivalent Holland scale: Investigative).

ARTISTIC interest means you like to express yourself through artistic media. This includes artistic, musical and literary occupations. Examples: Architecture, Fashion Design, Interior Design, Signwriting, Dancing, Drafting, Music, Writer, Actor. (Equivalent Holland scale: Artistic).

SOCIAL interest involves showing concern and support. It includes educational and social welfare occupations. Examples: Teaching, Welfare Work, Librarianship, Child Care, Careers Work, Church Work, Nursing. (Equivalent Holland scale: Social).

ENTERPRISING interest shows that you like activities that involve leadership, responsibility or selling. This includes managerial and sales occupations. Examples: Advertising, Auctioneer, Politics, Sales, Trade Union Work, Management. (Equivalent Holland scale: Enterprising).

CLERICAL interest means that you prefer to deal with words, data, facts and numbers. This includes office and clerical occupations. Examples: Accountancy, Banking, Computer Work, Reception Work, Typing, Telephonist, Editor, Stockbroker, Insurance, Legal Work. (Equivalent Holland scale: Conventional).

This set of scale descriptions was compared to Holland's (1974) original descriptions. Three separate studies of high school students (n=1234) found the above descriptions to be more acceptable and more readily understood (Athanasou, 1982).

Development of Scales

The emphasis on item development was that items should be provided by subjects, rather than by psychologists. High school subjects (n=148) were asked in a written free-association task to list as many jobs as they could remember in one minute. Similar free-association tasks in relation to leisure activities and study courses were also administered to the same subjects.

From the 1310 occupations listed, only those items which occurred 2 or more times were included in a pilot questionnaire. Thus, only generally familiar occupational titles were retained. The pilot questionnaire contained 138 items in homogeneous interest groups (outdoor, mechanical, computational, scientific, persuasive, artistic, literary, musical, social service and clerical). Subjects were asked to indicate those jobs that they think they would like. The pilot questionnaire was administered to vocational guidance clients (311 women; 260 men) throughout the state.

Complete link clustering (Johnson 1967) was used to develop homogeneous groups. Five subsequent analyses correlated each item with the six experimental scale totals. Items comprising each scale were selected to correlate higher with their total score, than any other scale. This procedure resulted in a slight overestimate of the item-total correlation, since the item itself was included in the total.

The number of items, mean scale scores and standard deviation are also listed in Table 1. The uneven number of items in each scale deserves some comment as it departs from established practice. To a very large extent it reflects the uneven distribution of occupations in the workforce (i.e. the large number of non-professional, semi-skilled, trades etc). Finally, no item was included in more than one scale.

Scoring

The Vocational Interest Scales are designed to be self-scoring. Items are listed together in homogeneous groups labelled Practical, Scientific Artistic, etc and no attempt is made to disguise the purpose of the survey which is intended for use only in guidance. Responses are scored 1= Like 0= Dislike, and merely added by the client to produce a scale total.

Norms

Same-sex standardised norms are available as percentiles for each of the six scales (Table 1). Raw scores are not used since scales are of different length. Significant differences between the mean scores of men and women in Table 1 are evident on the following scales : Practical ($t=7.61$ $p<0.001$), Artistic ($t=2.93$ $p<0.001$), Social ($t=10.5$ $p<0.001$) and Clerical ($t=7.94$ $p<0.001$).

Reliability

The internal consistency estimates of reliability (KR20) are shown in Table 1. Results indicate that the content of scales are relatively homogenous (0.72 to 0.93).

The test-retest reliability coefficients for 41 year 11 students over an 8-week period range from 0.597 to 0.780: Practical 0.737; Scientific 0.597; Artistic 0.656; Social 0.744; Enterprising 0.667 and Clerical 0.780.

Split-half reliability coefficients from the original sample (n=57) range from 0.777 to 0.931, and indicate moderate to high reliability: Practical 0.931; Scientific 0.77; Artistic 0.859; Social 0.821; Enterprising 0.797 and Clerical 0.821.

Scale Relationships

The intercorrelations of the six VIS scales are presented in Table 2. With only one exception (CR & CI), adjacent interest scales are more highly correlated diagonally opposite scales, as in the hexagonal arrangement proposed by Holland (1973), see Figure 2.

Principal components analysis with rotation to the varimax criterion (Kaiser, 1958) produced results comparable with earlier studies viz, a general factor, and a bipolar things vs people factor (cf Athanasou et al, 1981). Loadings for components with eigen values >1.0 are listed in Table 3.

Complete-link clustering using the hierarchical procedure of Johnston (1967) produced a partial match to the Holland (1973) model, in terms of the ordering of interest categories. The independence of all scales especially the Practical scale was also confirmed by these results. (see Figure 3).

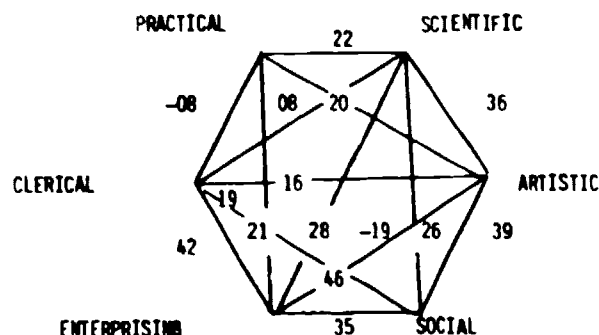


FIGURE 2 Hexagonal arrangement of VIS scales and inter-correlations.

TABLE 1 VOCATIONAL INTEREST SURVEY SCALES - TECHNICAL DATA

SCALE	NO. OF ITEMS	SCALE \bar{x}	SCORES(N=571) S.D.	WOMEN(N=311) \bar{x} S.D.	MEN(N=260) \bar{x} S.D.	MEDIAN ITEM-TOTAL CORRELATION	INTERNAL CONSISTENCY
PRACTICAL	34	4.86	6.35	3.06*** 5.35	7.01 6.79	.58	.93
SCIENTIFIC	12	1.81	2.34	1.74 2.28	1.91 2.44	.55	.79
ARTISTIC	19	3.93	3.83	4.35** 4.18	3.43 3.31	.49	.83
SOCIAL	12	2.16	2.31	3.23*** 2.69	1.53 2.12	.62	.78
ENTERPRISING	14	2.18	2.37	2.35 2.44	2.00 2.30	.47	.72
CLERICAL	14	2.45	3.20	2.98*** 3.70	1.83 2.35	.60	.86

*** $p < .001$

** $p < .01$

TABLE 2 INTERCORRELATIONS OF VOCATIONAL INTEREST SURVEY SCALES-UPPER TRIANGULAR MATRIX *(n=57)

SCALES	PRACTICAL	SCIENTIFIC	ARTISTIC	SOCIAL	ENTERPRISING	CLERICAL
PRACTICAL	-	.222	.202	-.197	.214	-.086
SCIENTIFIC		-	.367	.268	.289	.086
ARTISTIC			-	.399	.464	.168
SOCIAL				-	.353	.397
ENTERPRISING					-	.421
CLERICAL						-

* Decimals omitted

TABLE 3 PRINCIPAL COMPONENTS SOLUTION **N=571)

SCALES	UNROTATED		ROTATED		H ²
	I	II	I	II	
PRACTICAL	196	834	719	465	734
SCIENTIFIC	582	368	675	-137	475
ARTISTIC	740	216	684	-356	595
SOCIAL	687	-456	179	-802	680
ENTERPRISING	779	064	607	-493	612
CLERICAL	570	-483	076	-744	560
Eigen value	2.33	1.32			60.8%
% Total variance	38.8%	22.0%			

* Decimals omitted

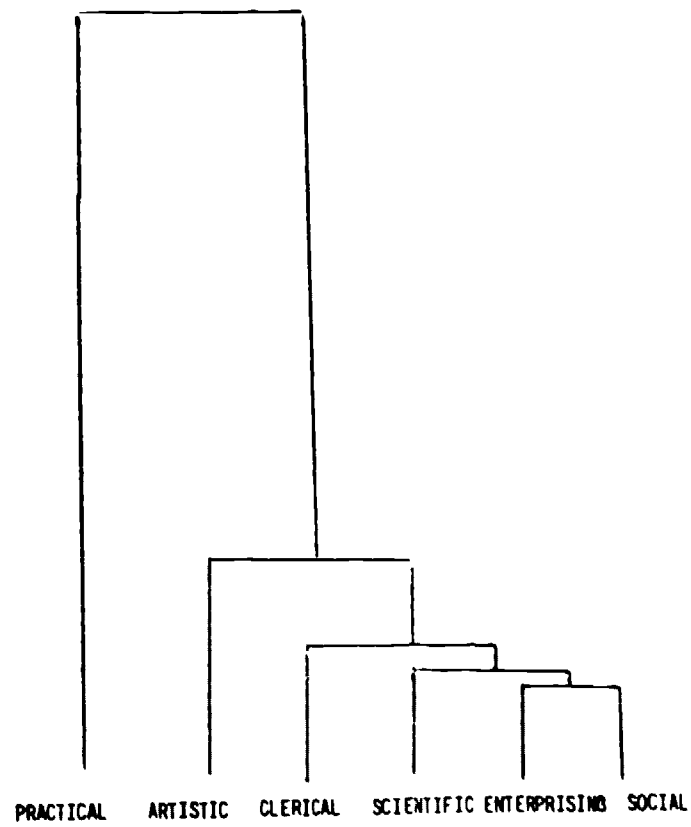


FIGURE 3 Complete-link clusters of Vocational Interest Survey scales

Correlations with other measures of Holland's types

Correlations between the VIS and six scores from the Occupations section of the Self-Directed Search were obtained from guidance clients (n=79). In all six instances correlations between the related SDS and VIS scales are highest (Table 4).

TABLE 4 CORRELATION OF VOCATIONAL INTEREST SURVEY WITH SDS*

VIS SCALES	SELF - DIRECTED SEARCH					
	R	I	A	S	E	C
PRACTICAL	<u>.645</u>	.183	-.002	.061	.287	.136
SCIENTIFIC	.329	<u>.697</u>	.380	.464	.328	.205
ARTISTIC	-.015	.290	<u>.732</u>	.436	.378	.071
SOCIAL	-.225	.178	.442	<u>.608</u>	.245	.109
ENTERPRISING	.240	.285	.470	.426	<u>.639</u>	.345
CLERICAL	.160	.199	.090	.216	.374	<u>.522</u>

* Decimals omitted (N=79)

Some perspective on these results is provided by correlations between the VPI and SDS, the median correlation is 0.43 for males and 0.55 for females (Holland, 1979). For the six UNIACT (Lamb & Prediger, 1981) and VPI scales, the median is 0.46 for males and 0.52 for females. For the VIS, the median correlation was .643 and indicated the close relationship in format and style of these two measures of Holland types.

Other measures of interests, abilities and personality

Additional data relevant to the construct validity of the VIS are provided in Table 5, where correlations with self-estimates of Kuder interest from the Kuder Interest Survey- KIS (Athanasou, 1980) are shown. The KIS was administered at the same time as the pilot questionnaire. Both inventories were designed to measure basic interests, and the highest correlations for related scales support the expected results.

TABLE 5 CORRELATIONS OF VOCATIONAL INTEREST SURVEY WITH KUDER INTEREST SURVEY*

VIS SCALES	KUDER INTEREST SURVEY									
	O	Me	Co	Sc	P	A	L	Mu	SS	Cl
PRACTICAL		.566								
SCIENTIFIC			.428							
ARTISTIC						.434				
SOCIAL									.536	
ENTERPRISING					.274					
CLERICAL			.447							-.573

*Highest correlation only (N=571)

O = Outdoor	A = Artistic
Me = Mechanical	L = Literary
Co = Computational	Mu = Musical
Sc = Scientific	SS = Social Service
Pe = Persuasive	Cl = Clerical

Relationships between the VIS and the Eysenck Personality Questionnaire (Eysenck & Eysenck, 1976) are indicated in Table 6. Data are based on the responses of 30 guidance clients and support previous findings of low correlations between personality and vocational interests (c.f. Holland 1975; Athanasou et al. 1982).

TABLE 6 CORRELATIONS OF VOCATIONAL INTEREST SURVEY WITH EYSENCK PERSONALITY QUESTIONNAIRE*

VIS SCALES	EYSENCK PERSONALITY QUESTIONNAIRE			
	P	E	N	L
PRACTICAL	108			245
SCIENTIFIC			159	
ARTISTIC		311		
SOCIAL			373	
ENTERPRISING			381	
CLERICAL				

* Highest correlations only (N=30)

Correlations of VIS with ability measures were available for 32 vocational guidance clients and are listed in Table 7. As expected, correlations were low and the maximum amount of shared variance was 31% between Artistic interests and Non-Verbal reasoning ability.

TABLE 7 CORRELATIONS OF VOCATIONAL INTEREST SURVEY WITH ABILITY SCORES*

VIS SCALES	GENERAL ¹ ABILITY	VERBAL REASONING	NUMERICAL REASONING	NON-VERBAL REASONING	SPATIAL REASONING
PRACTICAL	-353	-341	-313	-202	-134
SCIENTIFIC	<u>349</u>	<u>372</u>	313	271	028
ARTISTIC	<u>368</u>	<u>334</u>	<u>381</u>	<u>557</u>	292
SOCIAL	094	101	104	068	086
ENTERPRISING	031	-006	037	-256	-243
CLERICAL	-033	-022	-051	-242	-028

* Correlations underlined are significant ($p < 0.01$)

¹ General ability is a composite of V and N

Interpretation

Principles for the interpretation of results have been clearly outlined by Holland (1965, 1973). These mainly relate to the issues of congruency, consistency and differentiation of types. Briefly, we can first characterise people by their resemblance to the interest types. Secondly, we can examine the relationship within and between the types, according to the hexagonal model. Finally practical assistance for clients is available in the form of published aids such as the "Occupations Finder" (Holland, 1974) or "Understanding Yourself and Your Career" (Holland, 1977).

Conclusion

The Vocational Interest Survey provides counsellors with information at low cost and with brief testing time. It seeks to help clients learn about congruent occupational options to explore.

The above scales which contain items selected on a different rationale from the VPI, and which are also presented in a different format, were developed in terms of Holland's theory. The present study provides initial data on these experimental scales, which are intended for use in guidance and research. Further studies will examine educational interests and activity interests, as well as the possibility of reducing the scales to two bi-polar independent dimensions of People vs Things and Data vs Ideas.

APPENDIX : PERCENTILE NORMS

PERCENTILE	PRACTICAL			SCIENTIFIC			ARTISTIC			SOCIAL			ENTERPRISING			CLERICAL		
	WOMEN	MEN	TOTAL	WOMEN	MEN	TOTAL	WOMEN	MEN	TOTAL	WOMEN	MEN	TOTAL	WOMEN	MEN	TOTAL	WOMEN	MEN	TOTAL
96-100%	15+	21+	19+	7+	7+	7+	13+	10+	12+	9+	6+	8+	7+	7+	8+	12+	7+	11+
91-95	10-14	16-20	14-18	5-6	6	5-6	11-12	9	10-11	7-8	5	6-7	6	5-6	6-7	9-11	5-6	7-10
86-90	7-9	14-15	11-13	4	5	4	10	7-8	9	6	4	5	5	4	4-5	7-8	4	5-6
81-85	5-6	13	9-10	3	4	3	8-9	6	7-8	-	3	-	4	-	-	5-6	3	4
76-80	4	11-12	7-8	2	3	-	6-7	5	6	5	-	4	3	3	3	4	-	-
71-75	3	9-10	6	-	2	2	5	-	5	4	2	-	-	-	-	-	2	3
66-70	-	8	4-5	-	-	-	-	4	4	-	-	3	-	2	2	3	-	-
61-70	2	7	-	-	-	-	4	-	-	-	1	-	2	-	-	-	-	2
56-60	-	6	3	1	1	1	3	3	3	3	-	2	-	-	-	2	-	-
51-55	-	5	2	-	-	-	-	-	-	-	-	-	-	1	1	-	1	1
46-50	1	4	-	-	-	-	-	2	-	2	0	1	1	-	-	1	-	-
41-45	-	3	1	-	-	-	2	-	2	-	-	-	-	-	-	-	0	-
36-40	-	2	-	0	0	-	-	1	-	-	-	-	-	-	-	0	-	0
31-35	-	-	-	-	-	-	-	-	1	1	-	0	-	-	0	-	-	-
26-30	0	-	0	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
21-25	-	1	-	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-
16-20	-	-	-	-	-	0	-	-	0	0	-	-	-	-	-	-	-	-
11-15	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6-10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Vocational Interest Survey

VIS:Occupations

Here is a list of jobs. Place a tick ☒ next to those you think you would like. Don't worry about being good at this work or about being trained for it. Think only about whether you would like to do the work done in that job. Work as fast as you can.

PRACTICAL

- ☐ Farmer
☐ Greenkeeper
☐ Labourer
☐ Surveyor
☐ Grazier
☐ Sportsman/Sportswoman
☐ Mechanic
☐ Electrician
☐ Carpenter
☐ Engineer
☐ Plumber
☐ Butcher
☐ Bricklayer
☐ Builder
☐ Pilot
☐ Boilermaker
☐ Truck Driver
☐ Fitter & Turner
☐ Panelbeater
☐ Auto Electrician
☐ Civil Engineer
☐ Tiler
☐ Apprentice
☐ Miner
☐ Technician
☐ Bootbuilder
☐ Cabinetmaker
☐ Concrete
☐ Driver
☐ Electrical Fitter/Mechanic
☐ Electronic Technician
☐ Electronic Engineer
☐ Watchmaker
☐ Toolmaker
☐ TOTAL PRACTICAL

SCIENTIFIC

- ☐ Marine Engineer
☐ Doctor
☐ Dentist
☐ Veterinarian
☐ Scientist
☐ Pharmacist
☐ Physicist
☐ Zoologist
☐ Geologist
☐ Orthodontist
☐ Surgeon
☐ Physiotherapist
☐ TOTAL SCIENTIFIC

ARTISTIC

- ☐ Painter
☐ Architect
☐ Artist
☐ Drafting
☐ Interior Decorator
☐ Beautician
☐ Fashion Designer
☐ Florist
☐ Jeweller
☐ Photographer
☐ Designer
☐ Signwriter
☐ Tracer
☐ Actor/Actress
☐ Journalist
☐ Writer
☐ Musician
☐ Dancer
☐ Disc Jockey
☐ TOTAL ARTISTIC

SOCIAL

- ☐ Hairdresser
☐ Air Hostess
☐ Librarian
☐ Teacher
☐ Nurse
☐ Social Worker
☐ Vocational Guidance Officer
☐ Child Care Assistant
☐ Pre-School Teacher
☐ Nurse's Aide
☐ Occupational Therapist
☐ Sociologist
☐ TOTAL SOCIAL

ENTERPRISING

- ☐ Shop Assistant
☐ Sales Representative
☐ Manager
☐ Shopkeeper
☐ Barmaid/Barman
☐ Business Owner
☐ Retailer
☐ Waiter/Waitress
☐ Insurance Sales
☐ Travel Agent
☐ Executive
☐ Prime Minister
☐ Steward/Stewardess
☐ Lawyer (Solicitor/Barrister)
☐ TOTAL ENTERPRISING

CLERICAL

- ☐ Accountant
☐ Banker
☐ Computer Programmer
☐ Bookkeeper
☐ Secretary
☐ Clerk
☐ Typist
☐ Bank Clerk
☐ Computer Operator
☐ Office Worker
☐ Receptionist
☐ Cashier
☐ Stenographer
☐ Telephonist
☐ TOTAL CLERICAL

VOCATIONAL INTEREST CATEGORIES

PRACTICAL interest means that you prefer work in skilled trades, technical and some service occupations. These activities involve physical strength and practical action. Examples: Printing, Farming, Shop Work, Electronics, Gardening, Mining, Driving, Engineering, Technician.

SCIENTIFIC interest means that you like to know, how and why things occur and work. This includes scientific and some technical occupations. Examples: Astronomy, Museum Work, Biology, Medicine, Chemistry, Geology, Physics, Veterinary Work.

ARTISTIC interest means you like to express yourself through artistic media. This includes artistic, musical and literary occupations. Examples: Architecture, Fashion Design, Interior Design, Signwriting, Dancing, Drafting, Music, Writer, Actor.

SOCIAL interest involves showing concern and support. It includes educational and social welfare occupations. Examples: Teaching, Welfare Work, Librarianship, Child Care, Careers Work, Church Work, Nursing.

ENTERPRISING interest shows that you like activities that involve leadership, responsibility or selling. This includes managerial and sales occupations. Examples: Advertising, Auctioneer, Politics, Sales, Trade Union Work, Management.

CLERICAL interest means that you prefer to deal with words, data, facts and numbers. This includes office and clerical occupations. Examples: Accountancy, Banking, Computer Work, Reception Work, Typing, Telephonist, Editor, Stockbroker, Insurance, Legal Work.

Interest Profile

SUMMARY OF YOUR VOCATIONAL INTERESTS

NAME _____

COUNSELLOR _____

DATE _____

PERCENTILE	100	90	80	70	60	50	40	30	20	10	5
ACTIVITY	PRACTICAL	SCIENTIFIC	ARTISTIC	SOCIAL	ENTERPRISING	CLERICAL					
100	21	7	10	8	7	7					
90	16-20	8		5	5	5					
80	11-15	5		4	4	4					
70	13	4		3	3	3					
60	11-12	3		5	3	3					
50	8-10	2		2	2	2					
40	8		4	1	2						
30	7	1	3		1						
20	5				1						
10	4		2	8							
5	3	8	1			8					
	2				8						
	1		8								
	8										

PERCENTILE	100	90	80	70	60	50	40	30	20	10	5
ACTIVITY	PRACTICAL	SCIENTIFIC	ARTISTIC	SOCIAL	ENTERPRISING	CLERICAL					
100	15	7	13	8	7	12					
90	10-14	5		7	8	11					
80	7-9	4	11-12	8	5	10					
70	5-6	3	8	5	4	8					
60	4	2	5	4	3	7					
50	3		5			6					
40	2		4		2	5					
30		1	3	3		4					
20	1			2	1	3					
10		2				2					
5		8				8					
			1								
			8		8						

PERCENTILE	100	90	80	70	60	50	40	30	20	10	5
ACTIVITY	PRACTICAL	SCIENTIFIC	ARTISTIC	SOCIAL	ENTERPRISING	CLERICAL					
100	19	7	12	8	8	11					
90	14-18	5	10-11	6-7	7	10					
80	11-13	4	9	5	5	9					
70	9-10	3	7-8	4	3	8					
60	7-8		6	4	2	7					
50	6	2	5	3	2	6					
40	5-5		4	2	1	5					
30	3	1	3	2		4					
20	2			1	1	3					
10	1		2			2					
5			1	8		8					
	8	8									

This profile shows your interest in six important work activities listed across the top of the chart. Mark your scores on the tables above with a cross "x" and join the crosses to make a graph of your interests.

High scores show the type of activities you like best. Rarely more than one high score indicates a combination of interests, low scores should also be considered since they indicate activities you probably do not enjoy.

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Percentiles on the graph will also help you see how your interests compare with those of other people. Percentiles give you some idea of where you rank—if say, your percentile is 80%, your interest is greater than 80% of others; or if your percentile is 50%, you are right in the middle if you are at the 50% level, this means about 75% have a greater interest than you.

Finally, remember that your interests are only a small part of helping you decide about occupations. Abilities and values will also determine what you do well.

JOB GUIDE

for use with

VOCATIONAL INTEREST SURVEY

The three letter codes in the JOB GUIDE provide descriptions of occupations. Use the JOB GUIDE to find occupations whose codes are the same as the three highest scores on the VIS.

For example, if the highest scores were RIA then occupations with codes of RIA should be explored. At the same time there are other variations of RIA to consider eg IRA, AIR, RAI, ARI, IAR. There are six possible arrangements of the highest scores.

CODE

The occupations in this guide are arranged in terms of three-letter codes consistent with the Holland vocational typology.

HOLLAND CODE	VOCATIONAL INTEREST SCALE
R	PRACTICAL
I	SCIENTIFIC
A	ARTISTIC
S	SOCIAL
E	ENTERPRISING
C	CLERICAL

EDUCATION/TRAINING

Educational levels for each occupation are numbered from 1 to 5 and indicate various formal training or educational qualifications generally required.

EDUCATIONAL LEVEL	EDUCATIONAL/TRAINING REQUIREMENT
1	DEGREE
2	DIPLOMA
3	CERTIFICATE
4	TRADE
5	OTHER

<u>CODE</u>	<u>ED</u>	<u>OCCUPATION</u>
RIA	3	Architectural Drafting
RIA	3	Dental Technician
RIS	1	Forester
RIS	1,2	Industrial Arts Teacher
RIS	2,3	Radio Operator
RIS	4	Electrician
RIS	9	Miller/Foreman (Grain)
RIS	2,4	Jeweller
RIS	4	Plant Operator (Power Station)
RIS	4	Electrical Mechanic (Power Station)
RIS	4	Skilled Tradesperson
RIS	4	Tool Maker
RIS	4	Glatier
RIS	4	Weaving Mechanic
RIS	4	Baker
RIS	4	Cook (Commercial)
RIS	5	Service Station Attendant
RIS		Heat Treater
RIS	4	Optical Mechanic
RIS	4	Welder
RIS		Wire Worker
RIS	5	Offset Press Operator (Printing)
RIE	1,2	Automotive Engineer
RIE	1,2	Mechanical Engineer
RIE	1,2	Mining Engineer
RIE	1,2	Civil Engineer
RIE	2,3	Industrial Engineering Technician
RIE	2,3	Mechanical Engineering Technician
RIE	4	Ground Engineer (Aircraft)
RIE	5	Air Traffic Controller
RIE	4	Motor Mechanic
RIE	4	Watch Repairer
RIE	4	Boilermaker
RIE	2,3	Draftsman
RIE	4	Electroplater
RIE	4,5	Garage Supervisor
RIE	1,2,3,5	Farmer
RIE	4	Lineman
RIE	5	Loom Threader
RIE	4,5	Machine Repairer
RIE	5	Machinist
RIE	4,5	General Repairer (Factory, Mill etc.)
RIE	4,5	Machine Erector (Industrial)
RIE	4	Mechanic, Radio
RIE	4	Mechanic
RIE	4	Plumber
RIE	4	Sheet Metal Worker
RIE	4	Panelbeater
RIE	5	Air Compressor Driver
RIE	5	Engraver (Not Printing)
RIE	5	Heavy Equipment Operator
RIE	4,5	Roof Tiler
RIE	4	Upholsterer
RIE	5	Machine Operator
RIC	4	Stonemason
RIC	4,5	Lathe Operator
RIC	4	Lift Mechanic
RIC	5	Locksmith
RIC	2,3	Nuclear Reactor Technician
RIC	2,3,4	Nursery Worker (Plants)
RIC	4,5	Tree Surgeon
RIC	5	Piano Tuner

<u>CODE</u>	<u>ED</u>	<u>OCCUPATION</u>
RIC	4	Telegraph Mechanic
RIC	4,5	Metal Driller
RIC	5	Dry Cleaner
RIC	4,5	Grinder
RIC	4	Roller (Jewellery)
RIC	4	Printing Press Operator
RIC	3,5	Shipping/Receiving Clerk
RIC	4,5	Structural Steel Worker
RIC	5	Tyre Retreader
RIC	4	Shoe Repairer
RIC	4,5	Gardener
RAI	4	Compositor (Typesetter)
RAI	4	Bookbinder
RSE	4	Blacksmith
RSE	5	Fireman (Railway)
RSE	5	Pipe Layer
RSE	4	Moulder (Foundry)
RSE	5	Conductor (Railway)
RSE	4	Barber
RSE	4	Butcher
RSE	5	Police Officer
RSE	5	Detective
RSE	5	Fire Fighter (Aeroplanes)
RSE	5	Tram Driver
RSE	5	Taxicab Driver
RSE	5	Chauffeur
RSE	5	Waitress/Waiter
RSE	5	Milk Bar Attendant
RSE	5	Labourer, Guard, Caretaker, Watchman, Storeman
RSE	5	Parking Lot Attendant
RSC	5	Debt Collector
RSC	5	Lift Driver
RSC	5	Kitchen Hand
RSC	1,2	Agriculture Lecturer
RSC	4	Gas Fitter
RSC	4	Weaver (Commercial)
RSC	4	Knitter (Commercial)
REC	5	Maid (Motel/Hotel)
REI	4	Refrigeration Mechanic
REI	4	Shop/Plant Foreman
REI	1,2,5	Ships Pilot
REI	5	Track Layer (Railways)
RES	5	Fish and Game Warden
RES	5	Train Driver
RES	1,2,3,5	Cattle Farmer
RES	5	Crate Maker
RES	5	Packer
RES	5	Railway Switchman
RES	5	Stock Clerk
RES	5	Fisherman
RCI	1,3	Surveyor
RCI	4	Electrical Mechanic
RCI	5	Motion Picture Projectionist
RCI	4,5	Typewriter Mechanic
RCI	4	Carpenter
RCI	4,5	Painter (House, Building, Equipment)
RCI	3,5	Surveyor's Assistant (Chainman)

<u>CODE</u>	<u>ED</u>	<u>OCCUPATION</u>
RCS	4	Telegraphic Mechanic
RCS	4	Tailor
RCS	4	Dressmaker
RCS	4	Wall and Floor Tiler
RCS	3	Explosives Expert (Blaster, Powderman etc.)
RCS	4	Bricklayer
RCS	5	Bus Driver
RCS	5	Concrator
RCS	5	Furnace Operator
RCS	5	Spotsman
RCS	5	Meter Reader
RCS	5	Miner
RCS	5	Sailor (Seaman)
RCS	4	Plasterer
RCS	5	Heavy Equipment Driver
RCS	5	Spinner
RCE	5	Rigger
RCE	5	Grader (Fruit, Fish etc.)
RCE	5	Truck Driver
RCE	5	Tractor Driver
RCE	5	Forklift Driver
IAS	1,2	Economist
IAS	1	Doctor (Industry)
IAR	1	Anthropologist
IAR	1	Astronomer
IAR	1	Pathologist
IAR	1	Physicist
IAR	1	Chemist
isc	1	Production Engineer
ISC	2,3	Laboratory Technician (Medical)
ISC	4	T.V. Repairer
ISR	1	Biologist
ISR	2	Osteopath
ISR	2	Chiropractor
ISR	1,2	Mathematics Teacher
ISR	1,2	Natural Science Teacher
ISR	1	Optometrist
ISA	1	Doctor
ISA	1	Psychiatrist
ISA	1	Psychologist
ISA	1,2,3	Medical Technologist
IES	1	Bacteriologist
IES	1	Physiologist
IES	1	Pharmacist
IES	1,2	Research Assistant (Scientific)
IEC	1	Actuary
ICR	2,3	Quality Control Technician
ICR	5	Computer Operator
IRA	1	Geologist
IRA	1	Mathematician, Statistician
IRA	1	Surgeon
IRA	1	Meteorologist
IRA	5	Weather Observer

<u>CODE</u>	<u>ED</u>	<u>OCCUPATION</u>
IRS	1	Agronomist
IRS	3,5	Animal Husbandry
IRS	1	Botanist
IRS	1,2,3	Horticulturist
IRS	1	Natural Scientist
IRS	1	Oceanographer
IRS	1	Zoologist
IRS	3	Engineering Technician
IRS	1	Veterinarian
IRS	1	Geographer
IRS	2	X-Ray Technician
IRE	1	Aeronautical Engineer
IRE	1	Chemical Engineer
IRE	1	Dentist
IRE	2,3	Metallurgist Technician
IRE	1	Metallurgist
IRE	1	Engineer
IRE	2,3	Chemical Laboratory Technician
IRE	1	Electrical Engineer
IRE	1	Aerospace Engineer
IRE	3	Electronics Technician
INC	5	Aeroplane Navigator
INC	1,2,4	Computer Programmer
INC		Tool Designer
INC		Model Maker
INC	5	Aeroplane Pilot
INC	3	Engineering Technician
INC	4	Scientific Instrument Maker
INC	3	Laboratory Technician
INC		Tester-Electronic Systems
INC	4	Tool Maker
ASE		Drama Coach
ASE	1,2	English Teacher
ASE	1,2,5	Journalist/Reporter
ASE	1,2,5	Drama Teacher
ASE	.5	Dancing Teacher
ASE	1,2,3	Foreign Language Interpreter
ASI	1	Philosopher
ASI	1,2	Art Teacher
ASI	1,2	Literature Teacher
ASI	1,2	Music Teacher
ASI	5	Musician
ASI	1,2	Orchestra Leader
AES	1,2,3	Advertising Executive
AES	1,2,3	Advertising Manager
AFS	5	Entertainer (Singer, Dancer)
AES	1,3,5	Public Relations Person
AES	5	Fashion Model
AIS	1,2,5	Writer
AIS	1,2,5	Editor
AIS	1,2,5	Radio Program Writer
AIS	1,2,5	Dramatist
AIS	1,2,5	Actress/Actor
AIS	1,2,3,5	Designer
AIS	3	Interior Decorator
AIS	5	Critic (Reviewer)
AIS	3,5	Fashion Illustrator
AIS	1,2,3,5	Furniture Designer
AIS	1,2,5	Jewellery Designer
AIS	5	Furrier
AIS	3,5	Women's Garment Designer

<u>CODE</u>	<u>ED</u>	<u>OCCUPATION</u>
AIR	3	Decorator (Commercial)
AIR	1	Architect
AIR	1,2,3,5	Artist
AIR	1,2,3,5	Photographer
AIR	4	Photolithographer
AIR	2,3	Photographic Retoucher & Finisher
SEC	1,2	Director, Social Service Agency
SEC	1,2,5	Compensation Adviser
SEC	2	Recreation Officer
SEC	2,3	Employment Officer
SEC	5	Funeral Director
SEC	5	Interviewer
SEC	1,2	Job Analyst
SEC	1,2,3	Chamber of Commerce Executive
SEC	3	Dietary Aide
SEC	5	Bartender
SEC	5	Hostess/Host (Motel, Tearoom etc.)
SER	3,5	Insurance Claims Investigator
SER	3,5	Production Clerk (Estimating)
SER	1,2,3	Health & Welfare Co-Ordinator
SEI	1,2	Educational Administrator
SEI	1,2,3,5	Training Officer
SEI	1,2	Historian
SEI	1,2	History Teacher
SEI	3	Appliance Demonstrator/Representative
SEA	1,2	Counsellor
SEA	1	Diplomat
SCE	2	Recreation Director
SCE	5	Union Representative
SCE	5	Chief Housekeeper (Motel/Motel, Medical Services, etc.)
SCE	5	Theatre Manager
SCE	2,3,4,5	Caterer
SCE	5	Liquor Store Manager
SCE	5	Restaurant Proprietor
SCE	5	Correspondence Clerk
SCE	5	Passenger-Booking Clerk
SRI	1,2,3	Agricultural Adviser
SRE	1,2,5	Athletic Coach
SRE	1,2	Physical Education Teacher
SRE	1,2,3,5	Building Manager
SRE	5	Housekeeper
SRE	1	Occupational Therapist
SRE	1,2,3	Governess
SRE	5	Athlete
SRE	5	House Parent (Institution)
SRC	5	Ward Attendant
SIA	1	University Professor
SIA	1	Social Scientist
SIA	1	Sociologist
SIA	1,2,3	Registered Nurse
SIA	1	Social Worker
SIA	2	Recreation Officer
SIA	1,2	Rehabilitation Counsellor
SIE	2,3	Building Inspector
SIE	1,2,3	Personnel Officer

<u>CODE</u>	<u>ED</u>	<u>OCCUPATION</u>
SIE	1,2	Dietitian
SIE	5	Customs Inspector
SIC	1,2	Schools Superintendent
SIC	1,2,3	Health Inspector
SIC	5	Politician
SIC	1,2	Social Science Teacher
SIC	1,2,3,5	YWCA/YMCA Secretary
SIC	1,2	Parole Officer
SIR	2	Podiatrist (Foot Doctor)
SIR	1	Physiotherapist
SAE	1,2,3	Home Economist
SAE	5	Housewife
SAE	1,2	Home Economics Teacher
SAE	1,2	Foreign Language Teacher
SAE	1	Speech Teacher
SAE	1,2	Teacher
SAC	4,5	Beautician
SAC	5	Electrolysis Expert
SAC	4	Hairdresser
SAC	5	Manicurist
SAI	1,2,5	Minister (Priest)
SAI	1,2	Primary School Teacher
SAI	1,2,3	Librarian
SAI	1,2	Special Education Teacher
SAI	1	Audiologist
SAI	1	Speech Therapist
SAI	3,5	Dental Assistant
SAI	5	Dental Nurse
SAI	5	Nursing Aide
ECI	1,2,3	Marketing Analyst
ECI	1,2,3	Banker
ECS	1,2,3,5	Grain Buyer
ECS	3,5	Insurance Underwriter
ECS	2	Real Estate Valuer
ECS	3,5	Buyer (Purchasing Agent)
ECS	5	Real Estate Salesperson
ECS	5	Supervisor Ticket Sales
ECS	5	Florist (Dealer)
ECS	5	Art Goods Dealer
ECS	5	Furniture Dealer
ECS	1	Industrial Engineer
ECS	1,2,3,5	Farm Manager
ECS	3,5	Contractor
ERS	5	Warehouse Manager
ERC	5	Postmaster/Mistress
ERC	3,5	Salesperson, Technical Products
EAS	5	Lawyer, Solicitor, Magistrate, Barrister
EAR	5	Radio/T.V. Announcer
ESC	1,2,3	Administrative Assistant
ESC	1,2,3,5	Branch Manager
ESC	1,2,3	Industrial Relations Consultant
ESC	1,2,3	Employment Officer
ESC	1,2,3,5	Government Officer

<u>CODE</u>	<u>ED</u>	<u>OCCUPATION</u>
ESC	1,2,3,5	Insurance Manager
ESC	1,2,3,5	Manager/Administrator
ESC	1,2,3,5	Operations Manager
ESC	5	Manager, Restaurant/Bar
ESC	3,5	Personnel Assistant
ESC	1,2,3,5	Personnel Administrator
ESC	1,2,3,5	Recruitment Officer
ESC	1,2,3	Production Manager
ESC	3,5	Salary and Wages Administrator
ESC	1,2,3,5	Sales Manager
ESC	2,5	Distribution Manager
ESC	5	Manager (Entertainer)
ESC	1,2	Arbitration & Conciliation Officer
ESC	1,2,3,5	Office Manager
ESC	5	Customer Services Manager
ESC	5	Manager, Home Units/Flats
ESC	5	Insurance Investigator
ESC	1,2,3	Demonstrator
ESC	5	Despatcher, Motor Vehicles
ESC	5	Shop Assistant
ESC	3,5	Salesperson
ESR	5	Sporting Goods Salesperson
ESR	5	Travelling Salesperson
ESI	1,2,3,5	Director of Administrative Services
ESI	1,2,3	Systems Analyst, Business EDP
ESI	1,2,3	Director, Compensation
ESI	3,5	Life Assurance Salesperson
ESI	1,2	Manpower Advisor
ESI	5	Encyclopaedia Salesperson
ESI	5	Car Dealer
ESI	5	Service Station Manager
ESI	5	Gift Shop Manager
ESI	5	Grocer
ESI	2,5	Importer-Exporter (Wholesaler)
ESI	3,5	Retailer
ESI	5	Shoe Store Manager
ESA	1,2,5	Stockbroker
ESA	2	Recreation Officer
ESA	1,2,3,5	Travel Guide
ESA	3,5	Salesperson, Photographic Equipment & Supplies
ESA	5	Salesperson, Musical Instruments & Accessories
ESA	5	Air Hostess/Steward
CRI	5	Timekeeper
CRI	5	Accounting Machine Operator
CRI	5	Key Punch Operator
CRI	5	Duplicating Machine Operator
CRS	5	Filing Clerk
CRS	5	Teller
CNE	5	Sewing Machine Operator
CNE	5	Instrument Assembler
CIS	1,2	Public Accountant
CIS	1	Industrial Engineer
CIS	5	Bookkeeping Machine Operator
CIS	5	Estimator (Publishing)
CIS	5	Import/Export Clerk
CIS	5	Calculating Machine Operator
CIS	3,5	Accounting Statistical Clerk
CIS	5	Offset Printing Press Operator

<u>CODE</u>	<u>ED</u>	<u>OCCUPATION</u>
CIE	5	Office Worker
CIE	5	Wages Clerk
CIE	5	Proofreader
CIE	5	Typist
CIR	5	Accounting Machine Operator
CIR	5	Office Machine Operator
CIR	5	Telegraph Operator
CSE	1,2	Business (Commercial) Teacher
CSE	5	Records Clerk (Personnel)
CSE	1,2,3,5	Manufacturing Co-Ordinator
CSE	5	Information Officer (Transport)
CSE	5	Receptionist
CSE	5	Telephonist
CSR	5	Reservations Agent (Travel)
CSI	5	Bookkeeper
CSI	5	Cashier
CSA	5	Secretary
CSA	5	Medical Secretary
CSA	3,5	Library Assistant
CSA	5	Religious Affairs Clerk
CER	5	Data Processing Worker
CER	5	Postal Clerk
CEI	1,2	Investment Analyst
CEI	5	Personnel Secretary
CES		Accountant
CES	5	Credit Manager
CES	5	Clerk
CES	5	Stenographer

B. West, Government Printer, New South Wales.